

Index

#LancsBox, 25, 224, 226, 227	axiom
	and corpora, 74
acceptability, 169	and descriptive and explanatory ade
admitted hypothesis, 60	quacy, 76–77
AmE06	and extra-logical constants, 74, 75
replication of, 226	and interdependency, 92,
AmE06 Corpus, 222	177
AmE06' Corpus, 222	and precision, 103
AmE06" Corpus, 222	and range, 96
American English, 125	and stray statements, 91
corpus-based study of, 128	by convention, 76, 85, 96
modal verbs in, 218	in chemistry, 166
spoken, 181	of a theory, 74
American v. British English	of collocation, 74, 77, 80
decline of modals over time, 230	of narrative, 91, 92
frequencies of modals over time, 233-234	of quotation, 91, 92
high and low frequency modals over time,	of transcription, 176-178
231–232	axiom by convention, 78, 224
modal rank correlation, 238	AC1, 225
over time, 214	AC2, 225–226
the case of could and might, 235	AC3, 226
the decline of core modals, 244-245	AC4, 226
the stability of high and low frequency	AC5, 227
modals over time, 232-233	AC6, 233, 234–235
volatility in modal frequency over time,	AC7, 237
236–237	AC8, 239, 241
ampliative reasoning, 20, 27, 138	axiomatic functionalism, 160-161
annotation	origins, 160
and ontology, 16, 182, 191	
and underdetermination, 182, 183	balance
anticipation, 98, 120, 136	in corpus data, 27, 250
anti-naturalism, 113, 124	of propensity, 246
a-priori assumption, 15	basic statement, 72
Aristotelian	incremental refinement, 90
essences, 122	revision of, 90
Assamese, 171	role in theory, 80
assumption of purposefulness, 159, 161, 162	Bayesian reasoning, 138



308 Index

BE06	Chinese, 58
replication of, 226	Chomsky, Noam
BE06 Corpus, 222	and naturalism, 130
BE06' Corpus, 222	and scientia rationalis, 23
BE06" Corpus, 222	career, 7
BNC 1994	intuition and dogmatism, 54, 58, 61
demographic component, 189, 195	intuition and reality, 50–52
breach	Key Thinker entry, 7
of principle, 84, 162	universalism v. axiomatic functional-
British English, 125	ism, 161
corpus-based study of, 128	views on corpus linguistics, 6-7
modal verbs in, 218	cohort studies
Brown corpus, 102	and corpus linguistics, 202
Brown family of corpora	and matched samples, 226
and falsification, 64, 102	common sense, 29
and propensity, 147	and observation, 12–13
and the exploration of genre, time and	and rationality, 10
variety, 204	in science, 11
development of sampling structure, 225	view of reality, 10
extension, 199	view of science, 9–10
part-of-speech tagging of, 191, 199, 224	consistency, 82, 83
reconfiguration, 214	construction grammar, 73, 74, 182
sampling frame, 64, 65, 249	convention, 64, 65, 66, 67, 71, 76, 87, 90, 97,
54111pmig frame, 04, 05, 247	106, 109, 110, 118, 123, 149, 183, 189
Cartesian, 11	191, 192, 197, 237
causation, 138–139, 246, 248–249	and a-priorism, 107
and language variety, 213	and bias, 150
distal, 246	and dogmatism, 68, 90–91
proximal, 246	and extra-logical constants, 75
certainty	and statement equations, 75
and ampliative reasoning, 20	propensity and statistics, 240–244
and induction, 39	conventionalism. See anti-naturalism
and justificationism, 62–63	conviction, 49, 59
and Newtonian physics, 39	and inter-subjective testing, 60
and scientific élites, 50	and objection, 71
*	and objection, 71 and systems of belief, 86
and the management of uncertainty, 111 and the rationality principle, 118	corpus internal evidence, 168, 172
Cartesian dream of, 11	and acceptability, 176
dangers of, 152	corpus-based, 31, 85, 92, 185
unattainable, 178	corpus-driven, 31, 93
change over time	problems with, 41–42
and corpus construction, 147	corroboration, 35, 65, 79, 83, 94, 97, 205
and critical realism, 189	and convention, 90
and study design in the social sciences,	and conviction, 59
202–203	and fallibilism, 152
diachronic falsification, 137–138	and probability, 100, 101–105



Index 309

and provisional truth, 75 Popper's and Wittgenstein's and statistics, 250 contrasted, 253 degrees of, 101 position of this book, 131, 254-255 CQPweb, 186, 192 social-scientific, 217 critical rationalism, 131, 132, 166 essentialism, 122 and corpus data, 173 existential statement, 72, 207 and probability, 138 inverse, 72, 206 experimental design, 198, 201, 203-204, critical realism, 10, 47, 132 and change over time, 189 215 and corpus linguistics, 119 experimental falsifiers, 99, 128 and critical rationalism, 133-134 explanatory power, 77, 126, 129 and modelling, 251 external explanation, 155 and naive realism, 132-133 extra-scientific, 116 cross-sectional studies, 202, 205 link to the scientific, 116 design, 204 results, 115 critical rationalism and critical realism, 133-134 fallibilism, 109, 112 culturomics, 103, 113 and corroboration, 152 and scepticism, 109 dark matter, 150-151 falsifiability, 42-45, 79, 123 deduction, 17, 36, 106 and methodology, 60 and quasi-induction, 106-107 and simplified data, 127 deeming, 63, 89, 90, 94, 98, 105 degree of, 79, 96, 99, 102, 105 falsifiable, 43, 44, 75 and convention, 90-91 degree of falsifiability, 95 in correspondence with reality, 76 deterministic, 133, 140 falsification, 80 doctrine of revisability, 89 and ampliative reasoning, 100 dogmatism, 58, 60, 61, 67, 90, 98, 125, and conditional falsification, 107-108 131, 167 and conviction, 58 and justificationism, 63 and corroboration, 45 Dušková, Libuše and diachrony, 136 Key Thinker entry, 158 and dogmatism, 61, 71 and empirical content, 96 effect size, 53, 237, 243 and intuition, 49 eliminative inference, 65 and persistence, 79 empirical content, 95, 96, 100, 128, 137, 177, and prototypicality, 158 210, 221 and range, 97 empirical range, 137, 138 and rationality, 130 and surprise, 222 and recursion, 109 empiricism, 22-25 and rejection, 108, 129, 167 epistemology, 15, 16, 152 and testability, 93 and presupposition, 16 and the ordering of statements, 56 and statistical tests, 241 avoiding, 57 distinctions, 23 conditional, 108, 159, 206, 207, 245 functionalist, 157 in-situ, 163 normative, 89, 171, 174, 207 in-situ, and deception, 166



310 Index

induction, 17-18, 36, 37, 67, 112 falsification (cont.) methodological, defined and discussed, 243 and data scarcity, 18 falsifiers and quasi-induction, 106 potential, 80 and recursion, 40 problem of, 37-41, 42, 99, 184 FLOB corpus, 128 flout, 162, 166, 168, 175 infinite regress, 88, 89, 90 focus on the individual, 119-120, 121, 130, inflectional paradigms, 52-54, 61 135, 162, 169, 175 innate predispositions. See anticipation and probability, 141-142 institution, 119, 120 formalism and interpretation, 121 versus functionalism, 154-155 and science, 123 frequency, 48, 73, 94, 169 interaction with traditions, 121 and propensity, 141 of language, 120, 130, 134, 135, 136 word, 44, 66, 145, 180–182, 207 of language versus tradition, 121 instrumentation, 44, 90 frequentist, 243 Frown corpus, 192 intended audience, 165, 169, 170, 171 functionalism, 156 inter-subjective testing, 26, 59, 84, 86, 104, and performance data, 162 130, 197 and the Prague School, 157 and conviction, 60 axiomatic. See axiomatic functionalism invariantist, 155 Hallidavan, 159 irrationalism, 49 v. formalism, 154-155 justificationism, 63 genuine test, 49 God's truth linguistics, 183 Leech, Geoffrey and annotation, 182 Key Thinker entry, 32 and the rationality principle, 118 LOB corpus, 102 God's truth linguistics, 118 log-likelihood, 189, 192 and methodological falsification, 242 and dark matter. See dark matter Great Interlocutor, 43-44, 95 machine learning, 40 mathematics, 89, 116, 237, 242 Hajičová, Eva metadata, 145 Key Thinker entry, 158 in the BNC 1994, 186 Halliday, Michael in the BNC 2014, 136 metaphysical, 44, 55, 56, 197, 218 Key Thinker entry, 158 hocus-pocus linguistics, 118 addressing in corpus linguistics, 185 and anti-naturalism, 113 hypothesis formation, 29, 75, 107, 247 and replication, 221 and rules of acceptance, 59 idealism, 10 and transition to the scientific, 44-45 incremental refinement, 64, 97, 178 Chomskyan use of intuition, 83-84 incrementalism, 90 mutability of, 151 indeterminism, 122, 140, 246 statement, 43 objective, 132 methodological individual names, 69 approaches, 14



Index 311

relativism, 10	Key Thinker entry, 23
scepticism, 10	Oedipus effect, 125–126
methodology	ontological knowledge, 16, 69, 70, 201,
and falsification, 60	210, 213
and triangulation, 80	in linguistics, 70–72, 81
of science, 32	ostensive definition, 76, 77
modal verbs	
declining, 11	particularist, 47, 50
hypothesis 1, conclusion, 231	Popper, Karl
hypothesis 2, conclusion, 231	Key Thinker entry, 5
hypothesis 3, conclusion, 235	positivism, 112
hypothesis 4, conclusion, 235	potential falsifiers, 83, 85, 94, 96, 99,
hypothesis 5, conclusion, 238	137
hypothesis 6, conclusion, 239	and consistency, 83
hypothesis 7, conclusion, 239	and empirical content, 95
hypothesis 8, conclusion, 239	and ontological knowledge, 81
study of, 218	and time, 81
monism, 114	poverty of stimulus, 61–62
Mulder, Jan	Prague Linguistic Circle
Key Thinker entry, 160	Key Thinker entry, 156
- · · · · · · · · · · · · · · · · · · ·	precision, 103, 104
natural science, 27, 36, 113, 245	premise, 17–18, 56
and propensity, 149	presupposition. See a-priori assumption
and social science, 156	probability, 240, 242
naturalism, 136, 166	and ampliative reasoning, 20
and Chomsky, 130	and corroboration, 100, 101–105
in the social sciences, 165	and critical realism, 216
rejection of, 111-113	and empirical content, 95
replacement, 245, 249	and propensity, 138-152, 241
new statistics, 243, 245	and reality, 241
no prior selection, 49, 83, 84	and significance statistics, 241
nominalism	crystallised, 199
and linguistics, 122	propensity
non-normative, 169	and critical realism, 215
no-prior selection, 84	and probability, 138-152, 241
normative, 202	and sampling structure, 249
and replication, 245	and volition, 247
and well-formedness, 179	convention and statistics, 240-244
conjecture, 169-170, 174, 175, 177	of language, 184
spelling, 125	variation of, 207, 210
view of data, 154	protocol sentence, 84
numerical universality, 66	provisional truth, 63, 68-72
and corpora, 69	purposeful
	nature of language, 157, 162, 179
observability, 88	
Ockham, William	quasi-reality, 122, 129, 147, 149



312 Index

range, 96-98 in corpus data, 250, 251 rationality principle, 126-128, 165, 172 research design, 201-206, 212 realism, 9, 11, 12, 132 reality, 13, 15, 47, 87, 118 sampling, 201-203, 206 frame, 64, 207, 208, 212, 214, 226 and intuition, 50-52 and model of reality, 69, 127, 129, oversampling, 250 159 sampling structure. See sampling frame and probability, 241 science and propensity, 147 and paradigm, 20, 64, 150 and repeatability, 190 Newtonian, 38 and triangulation, 134 observational, 6, 66 approaches to, 9-11 philosophy of, 3, 33, 47, 99 correspondence to, 46-47, 50, 74 scientia correspondence to and range, 96 rationalis, 22, 113 correspondence to and truth, 12 realis, 22, 24, 30 correspondence to and realism, 12 scientific critical approach to. See critical realism (to be), 6, 12, 14-15, 31-32, 35, 42, 43, 44, degree of correspondence to, 96 45, 55, 60, 65, 68, 73, 82, 86, 109, individuals and, 119 116, 117 linguistic, 12, 13, 16, 20, 55, 96, 110, 132, and dogmatism, 60 161, 171, 184 transition from the metaphysical, 44_45 linguistic, problematizing, 52 linguistic, quasi-contact with, 50 observations, 26 observed, 29 social, 124, 148, 149, 150, 197, 213, 250 physical, 112 scientific method, 8, 15, 22, 25, 27, 31, 34, 67, 92-93 psychological, 56, 57, 77 searchlight theory, 93, 178, 185, 244 quasi-contact with, 47, 48, 77 set of permitted statements, 80, 81, 96, 100 social, 15, 112, 131-132, 134 redundancy, 91 severity of a test, 101 reification, 159 significance testing, 240-242 Chomskyan, 159 and convention, 64 rejection, 159 validity, 243 in situ, 165 simplicity, 99-100 repeatability, 25-26, 69, 185-190, 195, 197 simplifying assumptions, 126, 167 and broad replication, 217 in linguistics, 127 and direct repetition, 217 social context, 135 and direct replication, 217 and language, 114, 121, 130 of language, 134 and repetition with variation, 217 repetition. See repeatability social science, 113, 137, 152 replicability, 25-26, 200-201 and causality, 248 replication and critical rationalism, 131 broad replication, 217, 218, 221, 222 and natural science, 156 and naturalism, 165 direct replication, 217, 218 of the BE06 and AmE06 corpora, and propensity, 152 224, 225 and simplifying assumptions, 126 representativeness and the individual, 119



Index 313

epistemology, 217 quantitative, 245, 246 studies over time, 202-203 statement equation, 74, 75 statistical significance. See significance testing stray statement. See axiom, and stray statements Stubbs, Michael Key Thinker entry, 31 surprise and corroboration, 102 and corpus data, 138 and empirical range, 222 and replication, 218, 221, 244 diachronic, 137

test corpus, 200 testability, 94, 95, 100 topic modelling, 103–104
total accountability, 49, 83, 84, 85
tradition, 121, 135
and falsifiability, 123
and social context, 135
of language, 136–137
of language versus institution, 121
training corpus, 200
treatment design, 203–204
underdetermination, 48, 182
universal concepts, 69–70

universal concepts, 69–70 universal statement, 37, 38

version management, 186, 194, 195

Wittgenstein, Ludwig Key Thinker entry, 253 wordlists, 180–182